In the Specification:

Please amend the paragraph beginning on page 7, line 11 as follows:

Figure 3 illustrates a first preferred embodiment of the aperture of the present invention which decreases the effects of overlapping side maxima resulting from the diffraction of light. A plate [[50]] 50, sometimes referred to herein as a phase aperture or as an aperture, for aerial image improvement has a substantially circular shape and an outer edge 52. The plate may be made of, but is not limited to, quartz glass. The plate 50 includes a first opaque region 54 having a substantially circular shape located at the center of the plate 50. A second opaque region 56 is formed between the first opaque region 54 of the plate 50 and the outer edge 52 of the plate 50. An annular region 58 is formed around the plate 50 by the first opaque region 54 and second opaque region 56. The annular region 58 is divided into a first, second, third, and fourth sector 60, 62, 64, and 66, respectively. These light transmissive sectors are formed by varying the thickness of the aperture material which will impart the desired phase shifts as described below.

Please amend the paragraph beginning on page 8, line 19 as follows:

In operation, the preferred embodiment of the present invention is implemented as an aperture 50 in the apparatus shown in Figure 4. The aperture 50 provides off-axis illumination. In off-axis illumination, nth order light rays, both positive and negative, are utilized to improve resolution of pattern features. Note that light rays 13 being in and close to the y-axis are blocked by opaque region 54 of aperture 50. Light rays closer to the outer edge 52 (as shown in Figure 3) of the aperture 50 are also blocked by ring-shaped opaque region 56 of aperture 50. Only light rays passing through annular region

58, comprised of sectors 60, 62, 64, and 66, pass through to impinging upon photomask 8. These light rays impinge upon photomask 8 at an angle, as shown. By illuminating the photomask 8 at an angle σ off the y-axis, light rays, which are usually diffracted outside of the focusing lens 9, pass through the aperture [[130]] 50 to the focusing lens 9. Note that by using an annular opening region 58, ~~off axis~~ off-axis illumination is provided for any feature on photomask 8, regardless of the orientation of that feature (i.e. vertical, horizontal, or at an angle to the vertical or horizontal). The annular region 58 of the aperture [[130]] 50 results in the improved resolution of any orthogonal features because both positive and negative nth order light rays in any direction around the annular region will be captured by the focusing lens 9.

Please amend the paragraph beginning on page 10, line 3 as follows:

Figure 6 illustrates the light intensity profiles with overlapping side maxima for features illuminated with coherent light and incoherent light. A first intensity profile is represented by line 120. Line 120 represents the light intensity of a mask feature in a horizontal direction, such as feature 104 on a surface 106 of photomask 108 of Figure 5a. Line 122 represents the intensity profile of a vertical mask feature, such as feature 110 of Figure 5b. One skilled in the art will recognize that in actual practice, both feature 104 and feature 110 will be formed on the same photomask. The distortion or side maxima which results in degrading the contrast of the image (here, the contrast between orthogonal lines) is represented by lines 124 and 126. The side maxima overlap in a naturally coherent fashion. In other words the light wave characteristics are the same for both of the features (horizontal and vertical). The coherent overlap is represented by line

124. Mathematically, the overlap intensity is represented as α ~~$(E_1 + E_2)^2$~~, $(E_1 + E_2)^2$, where E represents the amplitude of the electrical field of the light wave.